



INSTRUCTORS GUIDE

Fall Prevention in Residential Construction Training

Fall Hazard Awareness, Prevention, Solutions and Rescue

Background on OSHA Seminars

The National Association of Home Builders (NAHB) and the Job-Site Safety Institute (JSI) has developed a 4-hour seminar for builders, trade contractors, supervisors and workers. This training program was funded under a grant from the Federal Occupational Safety and Health Administration (OSHA). This training program focuses on identifying fall hazards in residential construction, as well as, providing student attendees an understanding of the OSHA fall protection regulations and safe work practices to prevent fall-related injuries and deaths. Participants in the training, will be able to:

- Recognize common fall hazards in residential construction.
- Identify when fall protection is required.
- Determine which protection system to use for a given fall hazard.
- Understand the key requirements and basic safety practices for each protection system.
- Understand the safety requirements and practices for ladders and scaffolding.

General Guidelines

Please make sure to pre-plan your training sessions at least 3 weeks in advance. Also make sure proper equipment such as projector, laptop computer, and Microsoft PowerPoint software, etc. is available or be prepared to bring your own.

Ensure that you have all of the training materials required for the course (in the language being conducted), and enough copies for all participants. The PowerPoint presentation will not be printed for each participant; however it will be made available online at <https://www.osha.gov/dte/sharwood/index.html> and <https://www.nahb.org/en/learn/course-overviews/fall-prevention-in-residential-construction.aspx>.

Ensure that you have:

- Microsoft PowerPoint presentation “Fall Prevention in Residential Construction Training— Fall Hazard Awareness, Prevention, Solutions and Rescue”
- Resource Guide
- Sign in Sheets
- Post-Tests
- Seminar Evaluations

On the day of training please make sure you arrive at least 30 minutes prior to class beginning to set up the room for a successful session. Make sure you know where to go in case of emergency, and the location of the restroom(s).

The majority of the training presentation will be facilitated by and augmented with the use of the provided Microsoft PowerPoint presentation. The PowerPoint presentation should be used as the primary training tool to present the materials to participants. This training presentation should encourage interaction between instructors and participants.

The instructor should NOT be lecturing from the slides, but enticing discussions and facilitating the included hands-on exercises. The materials presented on the PowerPoint slides are designed to encourage discussion. ***As a part of this Instructors Guide, notes are included in the PowerPoint presentation as reference points for discussion on each of the slides.***

The instructors must ensure that all student participants have a copy of the training materials (i.e., Resource Guide, Pre/Post-Test, and Seminar Evaluation) before the seminar begins.





Target Audience

Three distinct at-risk worker populations in the residential construction industry: small businesses, new workers/businesses and non-English speaking/limited English proficiency and low literacy workers. In order to provide an effective and engaging training session we recommend that no more than 40 individuals attend any one training seminar. Training courses may be conducted in two sessions if the number of registrants exceeds 40 individuals.

Seminar Schedule

The Fall Prevention in Residential Construction seminar is scheduled to be a 4 ½ hour classroom course (4 hours of instruction and a 15 minute break and 15 minutes for testing and evaluation). We suggest the seminar be scheduled from either 8:00 AM to 12:30 PM or 1:00 PM to 5:30 PM. The course agenda is as follows:

- Section 1: Introduction / Overview of Fall Protection - 30 minutes
- Section 2: Ladders - 30 minutes
- Section 3: Scaffolds - 45 minutes
- Section 4: Conventional Fall Protection - 60 minutes
- Section 5: Additional Fall Protection Systems- 60 minutes
- Section 6: Rescue - 15 minutes

This material was produced under grant number SH-31198-SH7 from the Occupational Safety and Health Administration, U.S. Department of Labor. It does not necessarily reflect the views or policies of the U.S. Department of Labor, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.



RESOURCE GUIDE

Fall Prevention in Residential Construction Training

Fall Hazard Awareness, Prevention, Solutions and Rescue

Key Points

- Falls continue to be the leading cause of fatalities in residential construction.
 - More than 40% of fatal falls occurred from heights 15 feet or lower.
- Workers engaged in residential construction six (6) feet or more above lower levels must be protected by conventional fall protection (i.e., guardrail systems, safety net systems, or personal fall arrest systems) or other fall protection measures.



Guardrails



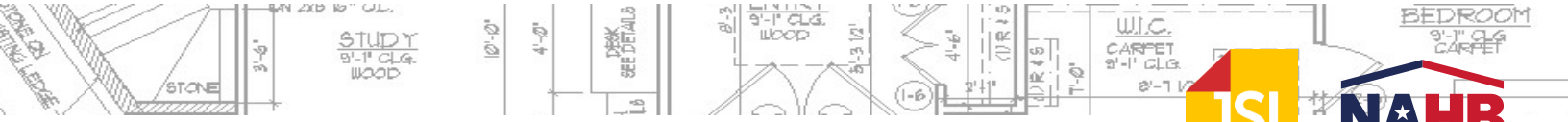
Safety Nets



Personal Fall Arrest System

- Consider working from a ladder, scaffold or aerial lift to reduce your risk of fall hazards.
- OSHA allows the use of fall restraint systems in lieu of a personal fall arrest system.
 - A fall restraint system must be rigged to prevent a worker from reaching a fall hazard and falling over the edge.
- Training - in accordance with 29 CFR 1926.503, employers must ensure that each employee who might be exposed to fall hazards has been trained by a competent person to recognize the hazards of falling and in the procedures to be followed to minimize those hazards.
 - Verify training by preparing a written certification record that contains the name of the employee trained, the date of training, and the instructor's signature.
- If an employer can demonstrate that fall protection required under 1926.501(b)(13) is infeasible or presents a greater hazard it must implement a written, site-specific fall protection plan meeting the requirements of 29 CFR 1926.502(k).
 - The fall protection plan must specify alternative measures that will be used to eliminate or reduce the possibility of employee falls.
 - Employers have the burden of establishing that it is appropriate to implement a fall protection plan.
 - Employers will be required to demonstrate the infeasibility of the required conventional fall protection systems or that such systems create a greater hazard if using alternative fall protection measures and a fall protection plan.
 - There is a presumption that it is feasible and will not create a greater hazard to implement one of the conventional fall protection methods.





- Create a fall protection rescue plan to describe the steps, tools and equipment to safely and quickly rescue fallen or suspended workers.

Frequently Asked Questions

There is a "Sample Fall Protection Plan" in Appendix E of Subpart M. Why did OSHA prepare this appendix?

Answer: OSHA included Appendix E in Subpart M to show employers and employees what a compliant fall protection plan might look like.

Is OSHA prohibiting the use of slideguards, safety monitors, warning lines and other forms of alternate fall protection during residential construction?

Answer: Slideguards, safety monitors, warning lines and other forms of alternate fall protection cannot simply be used in lieu of conventional fall protection methods under 1926.501(b)(13). However, alternate means may be used as part of a written, site-specific fall protection plan that meets the requirements of 1926.502(k) if the employer can demonstrate that the use of conventional fall protection (i.e., guardrail, safety net, or personal fall arrest systems) would be infeasible or create greater hazards.

Can general contractors who hire subcontractors be subject to OSHA citations for work that is conducted by a subcontractor's employees?

Answer: Yes, under OSHA's Multi-Employer Citation Policy more than one employer may be citable for a hazardous condition that violates an OSHA standard.

When do I need to have a written fall protection plan?

Answer: It is required to have a written and site-specific fall protection plan when employees are protected by non-conventional, or alternative fall protection methods.

Resources

- JSI/NAHB "Fall Prevention in Residential Construction" training PowerPoint Presentation: <https://www.nahb.org/en/learn/course-overviews/fall-prevention-in-residential-construction.aspx>
- JSI/NAHB Video Toolbox Talks: www.nahb.org/toolboxtalks
- NAHB safety training toolkits: www.nahb.org/safety
- Need a safety program? www.nahb.org/safetyprogram
- OSHA residential fall protection information: www.osha.gov/doc/residential_fall_protection.html
- Job-Site Safety Institute: www.jssafety.org





SIGN IN SHEET

Fall Prevention in Residential Construction Training

Fall Hazard Awareness, Prevention, Solutions and Rescue

Instructor Name: _____

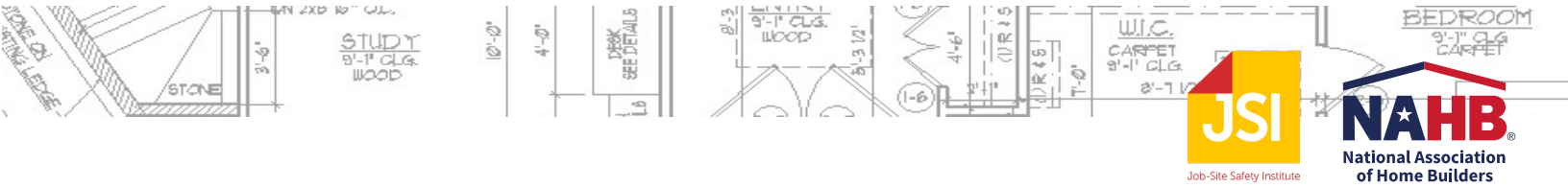
Date: _____

Location: _____

NOTE: PLEASE PRINT

Name	Company	Phone/Email





Suggested Training Props/Equipment

Fall Prevention in Residential Construction Training

Fall Hazard Awareness, Prevention, Solutions and Rescue

- 2 full body harnesses (one with rescue attached)
- Rescue stirrup/suspension trauma strap
- 2 shock absorbing lanyards (one good, one blown shock pack)
- Safe-T-Strap
- Self-Retracting Lifeline (SRL)
- Lifeline with rope grab (rope style)
- Metal rope grab
- 2 Residential roof anchor points (one time use and reusable)
- Knot eliminator
- Concrete anchor point
- Plastic floor hole cover
- Rebar cap for impalement protection (not rebar mushroom cap)
- Safety Boot Guardrail System/Angel Guardrail Boot

Total weight = Approximately 37 lbs.

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Version 1.0





TEST

Fall Prevention in Residential Construction Training

Fall Hazard Awareness, Prevention, Solutions and Rescue

Name: _____

Date: _____

Location: _____

1. There are many reasons why fall protection is important; what is the most important reason?

- a. OSHA requires fall protection for all employees.
- b. Falls result in serious injuries and fatal accidents.
- c. OSHA imposes fines for violating fall protection standards.
- d. Falls result in increased worker's compensation premiums.

2. The competent person is not responsible for:

- a. Conducting safety inspections.
- b. Developing a fall protection plan.
- c. Assessing workers use of fall protection systems.
- d. Establishing which fall protection system to use.

3. Which of these windows requires a guardrail?

- a. A window with a sill more than 39 in. from the floor.
- b. A window with a sill less than 39 in. from the floor.
- c. All upper floor windows with or without a sill.
- d. All upper floor windows with a sill.

4. Which of these stud walls requires a guardrail?

- a. A stud wall greater than 18 in. on center with a 6 ft. vertical drop.
- b. A stud wall less than 18 in. on center with a 6 ft. vertical drop.
- c. All stud walls on the upper level regardless of width.
- d. All stud walls with more than a 6ft. vertical drop.

5. The installation of floor joists/floor trusses can be safely done from:

- a. Ladders, scaffolding, or ground and lifted into place.
- b. Top plate or beam.
- c. Standing on unsecured floor joists/floor trusses.
- d. All of the above.

6. When should a PFAS be used to protect against hazards?

- a. When working more than 6 ft. above rebar or other impalement hazards.
- b. When working in an elevated aerial lift basket.
- c. During roofing operations on a fully sheathed roof.
- d. All of the above.

7. What is the best way to prevent a swing fall when you are using a PFAS?

- a. Make sure the anchor is not positioned near the side of a structure you might hit if you fall.
- b. Make sure the anchor is not attached to a single truss.
- c. Make sure you work no more than 30° away from the anchor.
- d. Make sure you use more than one anchor.

8. Which are the best fall protection methods to reduce the risk of falling through floor openings?

- a. Use hole covers or guardrails depending on the hole.
- b. Use hole covers and a CAZ depending on the hole.
- c. Use hole covers, guardrails, or a PFAS depending on the hole.
- d. Only use hole covers.





9. When using a ladder, you should?

- a. Inspect the ladder prior to each use.
- b. Remove damaged ladders from service and tag them as damaged.
- c. Never use a ladder that is broken or damaged.
- d. All of the above.

10. When using a PFAS the anchor point must be capable of supporting at least:

- a. 4,500 lbs. and twice the intended load.
- b. 5,000 lbs. or twice the intended load.
- c. 10,000 lbs.
- d. All of the above.

11. When using an exterior scaffold that is 15 ft. high, which of the following should be done?

- a. Ensure that the wall can hold two times the weight of the scaffold.
- b. Equip the scaffold with guardrails.
- c. Use a PFAS.
- d. Either (B) or (C).

12. When operating an aerial lift with a person in an elevated basket, when is it okay to move the lift?

- a. When the person in the basket gives the okay.
- b. When the competent person directs you to do so.
- c. When you are 10 ft. away from a power line.
- d. When the basket is no longer elevated.

13. Which of the following safe work practices should be used when climbing, descending, or working from a ladder?

- a. Face the ladder when climbing or descending and maintain three points of contact at all times.
- b. Keep your body centered on the ladder.
- c. Do not use metal or aluminum ladders near electrical lines.
- d. All of the above.
- e. None of the above.

14. Which of the following should be part of a written rescue plan?

- a. Types of rescue equipment available to workers.
- b. Specifics about training required to perform rescue.
- c. Site-specific details needed for a safe and successful rescue.
- d. Name and physical location of site and contact information of key personnel.
- e. All of the above.

15. When is walking on, or working off of, the exterior top plate wall permitted?

- a. It is always permitted.
- b. Permitted when installing roof trusses.
- c. Permitted while bracing roof trusses.
- d. Never permitted.





TEST – Answer Key

Fall Prevention in Residential Construction Training

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TRAINING EVALUATION

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Fall Hazard Awareness, Prevention, Solutions and Rescue

Please complete this survey at the end of the course. The information you provide will help improve the quality and delivery of future training seminars. Please be honest; all responses will remain confidential.

Name (Optional): _____ Location: _____

Your job title (Optional): _____ Date: _____

1. What were your objectives for attending this course? (Select all that apply)

Understand OSHA compliance Required to attend Networking Interest in topic Other

If other, state reason: _____

Please rate how strongly you agree or disagree with the following statements about the course and instructor.

	COURSE	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
2.	I will be able to apply what I learned to my job.	5	4	3	2	1
3.	The audio-visual aids help me follow along and learn the information.	5	4	3	2	1
4.	The course increased my knowledge of the subject.	5	4	3	2	1
5.	The examples and activities helped me understand the information.	5	4	3	2	1
6.	The pace of the course was appropriate.	5	4	3	2	1
7.	I was encouraged to ask questions and to participate.	5	4	3	2	1
8.	The course prepared me for the test.	5	4	3	2	1
9.	I would recommend this course to others	5	4	3	2	1
10.	Overall, the course met my expectations.	5	4	3	2	1
INSTRUCTOR						
11.	Instructor enhanced the learning experience through facilitated discussion.	5	4	3	2	1
12.	The instructor was knowledgeable about the subject matter.	5	4	3	2	1
13.	The instructor was clear and easy to understand.	5	4	3	2	1
14.	I would participate in another class with this instructor.	5	4	3	2	1

15. What did you like most about the course?

16. What suggestions do you have for improving the course?

17. What did you like most about the instructor?

PLEASE TURN OVER TO COMPLETE THE SURVEY.





18. Does your company currently have a safety program in place? Yes _____ No _____

19. Which course topics are you most interested in? (Select all that apply)

- | | |
|---|---|
| <input type="checkbox"/> Developing a safety program | <input type="checkbox"/> Chemical Safety/Hazard Communication |
| <input type="checkbox"/> Managing safety on the job | <input type="checkbox"/> Business management |
| <input type="checkbox"/> Fall Protection | <input type="checkbox"/> Workers compensation insurance |
| <input type="checkbox"/> Electrical safety | <input type="checkbox"/> Safety leadership |
| <input type="checkbox"/> Trenching/excavation safety | <input type="checkbox"/> Other (specify) _____ |
| <input type="checkbox"/> Health Hazards (silica, noise) | |

20. What format would you prefer training: **Please select one.**

- In-person
- Online
- Video

21. What is your primary business type? **Please select one.**

- | | |
|--|--|
| <input type="checkbox"/> Single Family Builder | <input type="checkbox"/> Managing a construction company |
| <input type="checkbox"/> Multifamily Builder | <input type="checkbox"/> Managing a division or department of a construction company |
| <input type="checkbox"/> Remodeler | <input type="checkbox"/> Conducting building inspections |
| <input type="checkbox"/> Commercial Builder | |

22. Which one of the following activities best describes your job? **Please select one.**

- | | |
|--|--|
| <input type="checkbox"/> Supervising others | <input type="checkbox"/> Managing a construction company |
| <input type="checkbox"/> Providing manual general labor duties in construction | <input type="checkbox"/> Managing a division or department of a construction company |
| <input type="checkbox"/> Providing skilled labor duties (e.g. with a specific trade) | <input type="checkbox"/> Conducting building inspections |
| <input type="checkbox"/> Managing a job site | <input type="checkbox"/> Conducting repairs and/or maintenance |
| | <input type="checkbox"/> Performing administrative or office work |

23: Please write in any additional comments about this course on the lines below.

